



# Technical Mapping Advisory Council

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## Minutes December 7-8, and 18, 1998

### Call to Order and Announcements December 7, 1998

The meeting was called to order by Mark Riebau, Chairman, at 8:30 a.m. Present for all or part of the meeting were:

#### **Members:**

Mark Riebau, Chairman  
Peggy Bowker  
Charles Challstrom  
Kari Craun  
Kevin Hickey  
Donald Hull  
Brian Hyde  
Wendy Lathrop  
Mike Moye

Sally Magee, FEMA  
Matt Miller, FEMA  
Mary Jean Pajak, FEMA  
Cindy Croxdale  
Mark Crowell, FEMA  
Lena Thompson, FIA  
Kathy Miller, MSC Project Officer  
Mike Grimm FEMA  
Bill Blanton, FEMA  
Jeff Sparrow, Dewberry & Davis  
Jim Murphy, Baker Engineering  
Lynn Sawyer, FIA  
Ken Zwickl, USACE  
Maureen Woosnam, FISCAA

#### **Others:**

Bill DeGroot  
John Gambel, FEMA

Members Al LeQuang and Mike Buckley were unable to be present. Matt Miller and Mary Jean Pajak will report proceedings to Mr. Buckley.

Maureen Woosnam was introduced. Ms. Woosnam represents the Flood Insurance Services Companies Association of America (FISCAA), and is participating as a Technical Advisor at the request of the Council.

### Minutes, November 3

The Minutes of the November 3, 1998, meeting were reviewed. On motion of Charles Challstrom, seconded by Wendy Lathrop, the Minutes were unanimously approved as distributed.

### Progress Report on MMP, *Matthew Miller*

- The Council has served as a catalyst for change, enabling FEMA to take action it could not otherwise have taken.

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#### Member Organizations

American Congress on Surveying and Mapping • American Society of Civil Engineers • Association of State Floodplain Managers  
Federal Home Loan Mortgage Corporation • Federal National Mortgage Association • National Flood Determination Association • NationsBank, a regulated lender  
National Oceanic and Atmospheric Administration • U.S. Geological Survey

- Recognized the Council for its helpful advice, and for giving FEMA an opportunity to “bounce ideas and program changes” off various constituencies.
- Reported that FEMA staff members tried to make the MMP objectives reflect the Council’s recommendations.
- Distributed a report to the council that summarizes the status of the objectives and proposed new objectives; and stated that the new objectives will be reviewed against the Council’s recommendations, as were the current objectives.

#### **Map Service Center Contract, *Kathy Miller***

- The MSC contract was awarded on October 31 to ZAI (Zimmerman Associates, Inc.), and will be in transition until end of January. ZAI will assume full responsibility on December 14, 1998.
- During the transition ZAI is reviewing the work in progress and Standard Operating Procedures, and is being trained by the incumbent contractor.
- Staff turnover will not be “large” and the facilities lease has been transferred to ZAI.
- Meetings are scheduled to discuss standards, updating the web page, GPO printing, and national archiving standards.
- Reconciliation is underway of the inventory against the flood map status information system and the community information system. The objective is to produce a list of active map panels not in the warehouse, identify missing negatives, and ascertain how many maps need to be reproduced.
- Discussion of a scanning strategy, subject to funding, is underway.
- ZAI will prepare a more elaborate presentation for the Council on future plans.
- The MSC has begun keeping at least two copies of every map, and has them on file, for the past year and one-half. The practice of archiving maps on microfiche was discontinued three years ago. The gap between discontinuance and maintenance of the two file copies has not yet been filled.

At the conclusion of Kathy Miller’s report, Matt Miller stated, “Now would be a good time for the council to weigh in on perceived deficiencies.” Peggy Bowker responded that the Council stands by its recommendation that an historical archive of maps be developed that contains every map ever published by FEMA - a practice common among mapping agencies. Mark Riebau agreed and added that old maps may need to be re-created to complete the archive. The historical record is quite critical, he added, for local officials, lenders and property owners as well as surveyors and determination firms.

#### **FEMA’s Five-Year Mapping Needs Assessment Process, *Cindy Croxdale***

- Congress asked FEMA to review each map every five years. A process, called Map Needs Update Support System (MNUSS), was set up to monitor and rank mapping needs.

- All communities mapped in the flood program were contacted to provide data. The data were entered into MNUSS, which categorizes the type of maintenance (e.g., the need to add corporate limits or street names or to reflect pertinent LOMCs). Also recorded is a determination about whether engineering or technical review, such as hydrologic or hydraulic analyses, are needed.
- FEMA coordinates plans with ASFPM to ensure that state needs are acknowledged, and hopes, ultimately, that state floodplain coordinators will have access to the databases and can work in coordination with regional staff.
- FEMA is working to ensure coordination among headquarters, the regions, and states throughout the process.
- MNUSS capabilities are being reviewed in light of the MMP to determine what kind of integration is needed, alternative methods for collecting data, and to deal with a lack of direct input to MNUSS from the regions.
- A report to Congress will be made in September 1999.

At the conclusion of Ms Croxdale's report, Wendy Lathrop clarified that the data-collection letter was sent to the floodplain administrators, and requested a copy of the most recent letter. Ms Croxdale noted that the new letter also includes information about the LOMA and LOMR processes, and that she will make it available to Ms Lathrop.

Ms Croxdale also expressed the hope that a feasible way can be found to issue between 18 and 20 thousand questionnaires that will be required to solicit the information FEMA needs for the MNUSS database.

An open discussion ensued, during which the following comments were made:

- One survey that went through the OMB-approval process came back with a different emphasis.
- FEMA, nevertheless, should go through the process and get the survey form approved by OMB because the agency will need to survey every five years. Once the form is approved, it can be continuously used.
- State participation in the data-collection effort can be expected to be inconsistent, although the states should partner with FEMA.
- FEMA should consider including a provision about data-collection in the performance partnership agreements.
- When a community assessment is being conducted for CRS, an in-person assessment of mapping needs could be added.

Ms Croxdale reported that every region has a representative on the task force, conference calls with regions are conducted monthly, and a meeting with regional engineers was held in October. The Technical Evaluation Contractors (TECs) will provide copies of data-collection letters to the regions in the future, and letters will be posted electronically where regions can view them. She noted that the regions at one time collected the letters and compiled the data but,

because they are swamped with disasters, the task “came back” to headquarters. It will now be devolved back to the regions.

Mr. Riebau replied that a nationwide inventory seems to be a legitimate function of headquarters. Ms Croxdale replied, “Part of our management strategy is to let the regions manage their regions. We will only maintain a centralized database.” Mr. Riebau pointed out the need for a consistent program, and Ms. Bowker added that the regions do not determine their own budgets.

Ms Croxdale closed by stating that “MNUSS will be used in determining the formula for allocating regional funds.”

### **Standard Flood-Hazard Determination Form, *Lena Thompson, FIA***

Ms Thompson reported that the form has been revised and is available. FEMA is publishing a notice of proposed rule in the Federal Register to allow a transition period of 90 days from the date of notice until the new form must be used.

Peggy Bowker pointed out that every time a change is made, major reprogramming is needed by some users and that cosmetic changes do not warrant the effort required to make them. Ms Thompson responded that the revisions were necessary to bring FEMA into compliance with the paperwork reduction act and OMB guidance. The date on the form had to be changed, and other changes were made based on comments received during the time the form was in use.

Matt Miller stated that he has seen the notation, “previous editions still usable,” and asked whether that were an option. Ms Thompson replied that the new form should be used as soon as the user becomes aware of it. She concluded her presentation, noting that she will bring copies of the Federal Register notice to the next Council meeting.

### **Evaluation of Erosion Hazards, *Mark Crowell***

Mr. Crowell distributed information about and reported on a coastal erosion study that FEMA is conducting in two phases in 18 coastal states. In the first phase, a statistically valid and representative sample of coastal communities was defined. The second phase, a pilot study in Sussex County, Delaware, is underway and is scheduled for completion in December 1999.

Mark Riebau asked for clarification of the direction FEMA is taking regarding erosion and what policy changes are under consideration. Mark Crowell responded that one of several bills introduced in Congress in 1990 passed the House. The proposal mandated that FEMA map erosion-hazard areas. Before the measure got to the Senate, special interests recognized its potential impact on housing prices, flood insurance availability, etc. Rates for flood insurance are similar for everything above the BFE, and enactment of such a measure could “fracture the risk classifications.” It would create erosion zone issues and management requirements. FEMA is looking at the question of whether it should map erosion-hazard areas. If the agency is required to do so, the delineations would have to be dynamic and could never show on a map a

60-year erosion hazard line, for example, because the line would need to be updated annually to be accurate.

Mark Riebau further questioned whether a building, for example, that fell into Lake Michigan or the ocean would be covered under the flood insurance policy. Mark Crowell replied that such occurrences would be covered only if the erosion causing the collapse of the structure were associated with a specific flooding event. If it were due to cyclical erosion, it would not be covered. Matt Miller noted that the erosion study could be a catalyst toward establishing a coastal erosion program.

Charles Challstrom urged that FEMA coordinate erosion-related activities with NOAA to both inform the Director of NOAA of the value of a FEMA erosion program and address overlapping activities. He added that NOAA could be of help to FEMA with technology elements, if not policy issues.

#### **LOMA 2000, Mark Crowell**

Reporting on MMP Objective 15, Mr. Crowell stated that the LOMA 2000 determination document eventually would be available from the Internet. A generic letter replaces the former letter and will be used until the LOMA 2000 (non-automated) is available. An automated version will then be instituted and will evolve into the LOMA 2000 Internet version. Automation will be complete by May 1999. Letters will be instantly posted to the Internet, and data will be entered only once to update the determination database, the letter, and the website.

Mike Moyer and Wendy Lathrop questioned whether existing LOMAs also would be posted on the website. Matt Miller responded that a questionnaire has been distributed for the purpose of determining how much users would be willing to pay to consolidate the databases. There is no firm plan to do so. Mary Jean Pajak added that as restudies are completed, FEMA will review previous map revisions and may revalidate them on the website.

Peggy Bowker raised the question of cost. Matt Miller responded that there is no charge for LOMAs but single-lot LOMR-Fs are \$400 and more complex LOMRs cost more.

Peggy Bowker noted her belief that fees for revised map panels were being set aside to make the panel revisions, and that the user cost for each revised map panel was \$410 about two years ago. She asked whether these funds were being held to make revisions. Matt Miller responded that about 90 percent of mapping funds come from flood insurance policyholders, and 10 percent from fees such as those for revised map panels. "There is no direct link between the money received for a panel and updating that panel. In a sense, the money from Maricopa County might subsidize Wisconsin."

#### **D-FIRM Standards, John Gambel**

Mr. Gambel distributed draft DFIRM 2.0 and DFIRM 2.1 Base Map Specifications, noting that FEMA is ready to move forward on these and recognizes that all related issues have not been addressed. From a policy standpoint, FEMA is heading toward phasing out its

preparation of base maps, substituting either (1) community-generated base maps that have the features and specifications FEMA needs (to be defined by standards), or (2) the best available public domain base map, such as the digital orthophoto quarterquad (DOQ) produced by USGS. Maps will be sought first from the community. If the community does not have a map, the availability of a DOQ will be determined; and if a DOQ is not available, other alternatives will be considered. FEMA could, for example, work with the community and USGS through its partnership program to have a DOQ produced for the county or an area of the county and share the costs of its production. A partnership involving the NRCS of the Department of Agriculture could be feasible. FEMA will be represented at the NRCS national partnership meeting and make a presentation about its needs.

Another FEMA direction is to encourage states and communities to assume responsibility for generating the base map. The maps incorporate features that fill local needs beyond the Flood Insurance program. We expect to encounter various issues – such as a situation in which several communities in an area have good base mapping but others have no base map – and are preparing to deal with matching up such “quilted” areas.

FEMA’s next step is to define a basic standard in guidelines and specifications, and form a base-map strategy group to anticipate issues about timing of base mapping, the building inventory, and how base mapping will relate to the Five-Year Mapping Needs Assessment Process.

A lot depends on scheduling and budget issues – what will be studied, what base map needs exist, and the local issues. FEMA will try to get those issues on the table and resolve them over the next year.

Matt Miller added that, at one extreme, FEMA’s goal is to use a community base map for every FIRM. FEMA’s objective is to depict accurate and current flood themes. FEMA will face the issue, of course, as to when to just say “No, we can’t make a floodplain map because we don’t have a good base map.” The flood theme could be perfect, but if applied to an inferior base map it would be criticized.

Mark Riebau concurred and noted that the Council as a group has repeatedly supported the position that an inaccurate base map should not be used. Peggy Bowker added that the Council might consider a recommendation to address this issue.

Brian Hyde raise the possibility of using line maps, noting that they are easier to update than DOQs, and that some communities’ line maps are made at higher resolution than DOQs. Kari Craun reported that the group has talked about merging images, perhaps overlaying vector information on the DOQ or finding some other option to accomplish the same objectives. Matt Miller offered the possibility of reserving a layer for additions to the DOQ as a way of producing interim updates. Peggy Bowker added that if photography were included, the age of the map would be more apparent.

Mary Jean Pajak reported that in converting everything to digital format, FEMA is trying to build flexibility into the product specifications, recognizing that all communities are different

and some do not have or need the “Cadillac” of maps. Not all communities would get the best map but they would get an improved map, and could add to the map other information, as it becomes available. The specific deliverables from this objective are the product specifications and use policies – giving people specific guidance on how the data should be used and producing prototype products.

Over the past six months, Ms. Pajak continued, FEMA has had five meetings at which issues were raised. These revealed that input is needed from other groups working on MMP objectives. Some objectives, however, have been accomplished. Planning tools have been developed, data distribution options have been discussed, and some prototype products have been produced.

Mike Grimm and Mary Jean Pajak are working on an action plan and trying to complete the specifications by July 1999. A meeting of the DFIRM work group is scheduled for December 22, by which the action plan will be finalized. Assignments will be made and scheduled. Progress will be reviewed in April and a final specification review will take place in June.

Ms Pajak completed her comments by inviting members of the Council to participate in the activities.

Mark Riebau expressed the hope that the specifications could be available in time for the March meeting.

Kari Craun pointed out the existence of proprietary data issues in using a community-based map. The community must give permission for the information to be distributed as public domain information. Limitations due to graphics also apply in terms of paper maps. Since graphic presentation of map information is a Council issue, the question arises: how are graphic presentation specifications enforced when using a digital community map?

Matt Miller responded that the issues of licensing and distribution are important, and every time FEMA uses a community map an agreement is signed that defines what will and will not be done with it.

Mike Grimm distributed sample maps, including “quilted” ones.

Matt Miller noted that the MSC will have to purchase equipment capable of printing on demand, and that such equipment will not print in color. Maureen Woosnam point out that, from the standpoint of retaining accuracy, color is often important, and color copiers are becoming more common. Matt Miller responded that in the next generation of products FEMA will have both digital and analogue data, as well as the option of color or black-and-white printing. The generation after that will be solely digital and web-based.

The Council engaged in general discussion that included the benefits of color maps, the role of lenders as users, the formation of a users’ group for non-technical applications, the

importance of accuracy over aesthetics, the addition of a link on the map section of the website to the elevation certification application, and other map distribution issues.

At the close of the discussion, Matt Miller stated that Council members' comments, written on the maps, would be helpful.

### **Riverine Erosion and Alluvial Fans, *Mike Grimm***

Mike Grimm continued with a presentation, using overhead transparencies, on riverine erosion and alluvial fan flooding. He also distributed a draft report on riverine erosion hazards. The Chairman asked that the Council receive copies of the transparencies via e-mail.

Matt Miller noted that, in the past, FEMA was too narrowly focused as an agency in studying alluvial fans and Mike Grimm is opening this up to a wider audience. Part of opening the process up is a formal response to NRS. Peggy Bowker added that the funding given to NRS was to define alluvial fan type flooding and alluvial fans. Although the committee went further, it recommended that more work be done.

### **Future Conditions Hydrology, *Mike Grimm***

Mr. Grimm summarized the problems, both legal and technical, of showing future hydrologic conditions on FIRMs. He said FEMA has produced a draft FIS and set of maps he would like the Council to look at. FEMA has proposed putting future conditions on the map for advisory purposes. The map would have the 100-year floodplain with BFEs and, instead of the 500-year floodplain, would have future-conditions hydrology. For insurance purposes existing conditions would be used, and the future conditions would support local planning needs. The recommendation solves the insurance situation.

Brian Hyde asked whether a standard definition of future conditions has been developed. Mike Grimm replied that a definition is in the report. The key component, because it is for advisory purposes, is flexibility for local communities.

Peggy Bowker commented that FEMA is looking at it as voluntary; if the community wants it, FEMA will do it.

Matt Miller asked how "future conditions" are treated in the Community Rating System (CRS). Mike Grimm replied that communities are given CRS credit points for use of future-conditions.

Mike Grimm reported that Cooperating Technical Communities (CTCs) would be categorized by a hierarchy of levels depending on the capability of the community. The first task – development of standardized CTC agreements – is administrative and has been partially completed. Draft agreements are being reviewed by FEMA's Office of General Counsel (OGC). The second task is technical: developing technical specifications for DFIRMs, base maps, etc. Task 3 is development of CTC criteria, Task 4 is a public awareness campaign, Task 5 is



implementation, and Task 6 is monitoring implementation of the plan. CTC projects will be finalized by March 1999, and draft products will be available next week.

In response to a question about OGC approval and the possibility of a need for legislative action to implement the CTC program, Matt Miller replied that legislative action is not needed.

Peggy Bowker noted that, in line with the CTC concept, it would be helpful if it were possible to eliminate the charges to communities for revising their maps. She asked that FEMA consider this in preparing its budget request. Many communities find the cost to be a heavy burden. Matt Miller pointed out that FEMA is dependent on fees in this program; when a community generates a map change, it is expected that they will pay the costs of the change. Mark Riebau suggested that review fees for CTCs might be waived. Bill DeGroot added that this is an issue. The Urban Drainage and Flood Control District paid \$15 to \$20 thousand this year for CLOMRs, then had to pay again for LOMAs to have the map amended. Since FEMA will be using community maps as base maps, FEMA will not have to pay to produce them and should give the community a break for this cost savings.

### **Privatizing LOMAs**

Matt Miller noted that Council members will be present at the meeting to consider privatizing the authority to issue LOMAs. One of the issues will be, "Does FEMA have the authority to do that?" FEMA General Counsel has stated that there is no statutory prohibition to delegating the authority, but a revision to the CFR will be necessary.

### **Objective 17, Matt Miller**

FEMA's process is linear with regard to FISs. The regional office has an initial meeting with local officials, lets a study contract, and gives data to a TEC. If a problem is identified, it goes back to the study contractor, than back to the TEC. This continuous loop process is simple to manage but takes too long. A process in which the jobs of the TEC and the contractor are conducted in parallel is being proposed in an attempt to eliminate redundancies. In some cases the TEC will do more, in some cases less.

Studies are underway using LIDAR and other technologies. FEMA will review what works and use the studies to develop standards for applying this new technology.

### **Executive Session**

At the conclusion of the FEMA presentations, Peggy Bowker moved that the Council discuss its meeting schedule in executive session. Wendy Lathrop seconded the motion, and it carried unanimously.

### **Open Session**

At the conclusion of the Executive session, Peggy Bowker moved that the 1999 meeting (March) be held in the metropolitan Washington, D.C., area and that the site of the September

meeting be Louisville, Kentucky. The motion was seconded by Mike Moye, and carried unanimously.

### **Elevation Certificate**

Wendy Lathrop reported that a conference call was held last week on the elevation certificate. Comments have been consolidated, and there are no substantial changes. After the editorial work is done, the final version will be issued in mid-March (rather than January).

### **1998 Annual Report**

The Council reviewed the November 19 draft of its annual report in detail, and made numerous revisions. Those revisions will be incorporated into the next draft; to be distributed between the time this meeting recesses and the continuation of the meeting by conference call on December 18. The final draft will be produced following December 18.

The recording secretary was directed to send two copies of the Annual Report, when it is printed, to the Library of Congress.

John Magnotti, Senior Engineer at FEMA and an expert on websites, demonstrated the new FEMA website, URL: <http://www.fema.gov/mit/tsd/>. He also reported that the volume of requests to post items in the FEMA online library has exceeded the capacity of the staff to catalogue the material.

### **New Business**

Sally Magee distributed and discussed conflict-of-interest information and the financial disclosure forms that Council members must complete annually and return to the FEMA ethics officer.

### **Recess**

As the meeting business was concluded for the day, the Chairman summarized action items:

1. The recording secretary will distribute by December 15 a new draft of the Annual Report, showing changes made;
2. The meeting will continue via conference on December 18, 1998, at 1:00 p.m. Eastern Time;
3. Changes to the Annual Report will be reflected in another draft prepared and distributed by the recording secretary on December 22;
4. The Council will meet again on January 5 by conference call at 1:00 p.m. Eastern Time to concur on final changes to the 1998 Annual Report;

5. The Council will provide final changes to the recording secretary by close of business on January 6.

Don Hull moved that the meeting recess, and reconvene by conference call on December 18, at 1:00 p.m. Eastern Time. The motion was seconded by Mike Moye, and carried unanimously.

The Chairman declared the meeting in recess on December 8, 1998, at 3:29 p.m.

### **December 18, 1998**

The meeting of the Technical Mapping Advisory Council was reconvened on December 18, at 1:00 p.m. by telephone conference call. All members were present.

Three subjects were discussed: (1) the schedule for finalizing the 1998 Annual Report; (2) changes to that report; and (3) the agenda for the March 1 and 2 meeting.

The final revisions to the report were completed during the conference call, except for a short portion to be written by Brian Hyde and submitted to the Recording Secretary by January 5, 1999.

On motion made by Wendy Lathrop and seconded by Mike Moye, the Council unanimously accepted the 1998 Annual Report with the inclusion of the changes discussed and upon approval via e-mail of the revisions to be prepared by Brian Hyde.

The Agenda for the March meeting was discussed, and Council members were asked to submit additional items to the Chairman before the meeting on January 5.

### **Adjournment**

Hearing no further business, the Chairman called for a motion to adjourn. On motion made and seconded, the meeting was declared adjourned at 3:14 p.m.

Respectfully submitted,

[original signed]

Mark Riebau  
Chairman